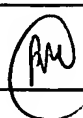


Notice of Allowability	Application No.	Applicant(s)	
	10/719,521	TAKEUCHI ET AL.	
	Examiner	Art Unit	
	Thuy V. Tran	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Request for Reconsideration filed 11/21/2005.
2. ☒ The allowed claim(s) is/are 1-5, 8, 9 and 11-13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

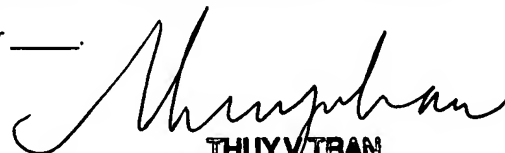
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|


THUY V. TRAN
PRIMARY EXAMINER

DETAILED ACTION

This is a reply to the Applicants' Request for Reconsideration submitted on 11/21/2005.

In virtue of this request, claims 6-7 and 10 have been canceled; and thus, claims 1-5, 8-9, and 11-13 are now presented in the instant application.

Allowable Subject Matter

1. Claims 1-5, 8-9, and 11-13 are allowed.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Prior art fails to disclose or fairly suggest:

- An electronic pulse generation device comprising means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of said emitter element, in combination with the remaining claimed limitations as called for in independent claim 1 (claims 2-3, 8, and 11-12 are allowed since they are dependent on claim 1);
- An electric pulse generating device comprising means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of said emitter element wherein said means for applying alternating pulse applies a first voltage between the first electrode and the second electrode for causing the first electrode to have a potential higher than a potential of the second electrode in a first period to perform the polarization of the emitter element in one direction, wherein said means for applying alternating pulse applies a second voltage between the first electrode and the second electrode for causing the first electrode to have a

potential lower than a potential of the second electrode in a second period to perform the polarization reversal or polarization change of the emitter element for emitting electrons, in combination with the remaining claimed limitations as called for in independent claim 4;

- An electronic pulse generating device comprising means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of said emitter element, in combination with the remaining claimed limitations as called for in independent claim 5;
- An electronic pulse generating device comprising means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of said emitter element, wherein polarization reversal or polarization change occurs in an electric field E applied to the emitter element represented by V_{ak}/h , where h is a thickness of the emitter element between the first electrode and the second electrode, and V_{ak} is a voltage between said first and second electrodes, in combination with the remaining claimed limitations as called for in independent claim 9; and
- An electronic pulse generating device comprising means for applying an alternating pulse between said first electrode and said second electrode to reverse or change polarization of said emitter element, wherein said first electrode, said emitter element, and a vacuum atmosphere define a triple point, in combination with the remaining claimed limitations as called for in independent claim 13.

Art Unit: 2821

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Remarks

3. Receipt is acknowledged of the substitute declaration filed on 07/20/2005.
4. The IDSs Applicants submitted on August 22, 2005 and June 10, 2005 were considered by the Examiner. The consideration of these IDSs was indicated in form PTOL-326, paper No. 09062005, mailed on 09/08/2005.
5. The Examiner acknowledges with appreciation that the statement "Claims 4-7, 9, and 13 was stated as being objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims" made in the Office Action mailed 09/09/2005 was processed in error.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2821

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

02/08/2006

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', written in a cursive style.

THUY V. TRAN
PRIMARY EXAMINER